SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier:  NF 260

SDS Number:  SDS-4322  Revised Date:  29 OCTOBER 2018

Product Use:  INDUSTRIAL USE - NO-FLOW UNDERFILL FLUX MATERIAL

MANUFACTURER:

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Singapore 628908
Information: +65 6268-8678

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USA: 1 (800) 424-9300
Outside USA: +1 (703) 527-3887
China: Emergency 86+ 4008417580

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Suzhou Industrial Park
Suchun Industrial Square
Unit No. 14-C
Jiangsu Province, China 215126
Information: (86) 512-6283-4900

www.indium.com
2. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:

- Eye
- Inhalation
- Skin
- Ingestion

Carcinogen listed in

- IARC
- OSHA
- Not Listed

*See Section 11

GHS:

Signal Word: Warning

Hazard statement(s)

H303  May be harmful if swallowed
H315  Causes skin irritation
H317  May cause an allergic skin reaction
H318  Causes serious eye damage
H334  May cause allergy or asthma symptoms or breathing difficulties if inhaled

Precautionary statement(s)

P233  Keep container tightly closed
P261  Avoid breathing dust/fume/gas/mist/vapors/spray
P270  Do not eat, drink or smoke when using this product
P273  Avoid release to the environment
P280  Wear protective gloves/protective clothing/eye protection/face protection
P362 +P364  Take off contaminated clothing and wash before reuse
P301 +P312  IF SWALLOWED: Call POISON CENTER or doctor/physician if you feel unwell
P302 +P352  IF ON SKIN: Wash with plenty of soap and water
P304 +P341  IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
P305 +P351  IF IN EYES: Rinse continuously with water for several minutes (15 mins)

Classification:

- Skin irritant- Category 2
- Skin sensitization- Category 1B
- Respiratory sensitization- Category 1B
- Eye irritant- Category 2A

POTENTIAL HEALTH EFFECTS:

Eye Contact:  Excessive redness and swelling of the conjunctiva may occur. Causes irritation, experienced as stinging and discomfort or pain.

Ingestion:  Ingestion may irritate the digestive tract. May be harmful.

Inhalation:  May cause irritation if heated, otherwise harmful health effects are not expected at ambient temperatures. Heated product may be harmful if inhaled.

Skin Contact:  Brief contact may cause slight irritation with itching and local redness. Long term exposure may cause dermatitis. May cause skin sensitization. Epoxy systems are known to cause de-fatting and drying of the skin. Heating of epoxy may cause irritation or sensitization.
3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>% wt</th>
<th>CAS Registry #</th>
<th>PEL mg/m³</th>
<th>TLV-TWA mg/m³</th>
<th>TLV-STEL mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPOXY RESINS</td>
<td>45-52</td>
<td>-</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td>HARDENER</td>
<td>42-49</td>
<td>19438-60-9</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td>PROPRIETARY INTERMEDIATES</td>
<td>2-15</td>
<td>-</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td>PROPRIETARY NONHAZARDOUS INGREDIENTS</td>
<td>1-5</td>
<td>-</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
</tbody>
</table>

N.E. = Not established

4. FIRST AID MEASURES

Eye Contact: Hold eyelids apart and flush eyes with plenty of tepid water for at least 15 minutes. Seek medical attention if irritation persists.

Ingestion: If patient is conscious, ONLY induce vomiting as directed by trained personnel. NEVER give anything by mouth to an unconscious person. Seek medical attention immediately.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration or oxygen by trained personnel. Seek immediate medical attention.

Skin Contact: Remove contaminated clothing. Wash affected area with soap and water. Wash clothing before reuse. If irritation persists, obtain medical attention.

5. FIRE FIGHTING MEASURES

Flash Point: Not established. Method: Not established.

Auto-ignition Temperature: Not established.

Flammable Limits: Limits not established, not flammable.

Extinguishing Media: Use extinguishers appropriate for the surrounding fire conditions, such as water spray all purpose-type foam or dry chemical.

Special Fire Fighting: Firefighters must wear NIOSH approved or equivalent self-contained breathing
6. ACCIDENTAL RELEASE MEASURES

**Spill or Leak Procedures:** Wear a respirator and appropriate personal protective equipment (See Exposure Controls/Personal Protective Section). Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Do not wash down sewer drain. Dispose of following all Federal, State and Local regulations. Wear PPE. Ventilate area.

7. HANDLING AND STORAGE

**Handling Precautions:** Keep containers tightly closed when not in use. Use care to avoid spills. Avoid breathing vapors from heated material. Avoid contact with eyes, skin and clothing. Use with adequate ventilation. Use personal protective equipment.

**Storage Precautions:** Store product in tightly capped original containers in a cool, dry area. Keep away from heat and flame. Product stored or exposed to temperatures above the 150°C may result in a minor exothermic reaction. Store away from incompatible materials. Empty containers may be hazardous as they contain product residue.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Good general exhaust ventilation should be sufficient to control airborne levels and keep exposure levels to as low as possible. Avoid breathing fumes. If ventilation is not adequate or if not available respiratory protection may be required when heating product.

**Personal protection:**

**Eyes:** Chemical safety glasses/goggles. Face shield for splash hazards.

**Respirator:** A NIOSH or authority approved or EU compliant CE marked air-purifying respirator with a fume/organic chemical cartridge is recommended under certain circumstances where airborne concentrations are expected to be elevated.

**Skin:** Compatible chemical resistant gloves to protect from direct contact with product. Sleeves and apron as appropriate.

**Other:** Eyewash fountain in work area. Avoid the use of contact lenses in high fume areas.

**Work/Hygienic Practices:** Maintain good housekeeping. Clean up spills immediately. Avoid eating, smoking or drinking in the work area. Wash hands and arms thoroughly with soap and water immediately upon leaving the work area. If skin has come in contact with product wash immediately to avoid any possible irritation. To reduce or eliminate skin exposure immediately remove any contaminated clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Pinkish/Gray</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight characteristic odor.</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>(air=1) Not applicable.</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Not established</td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

General: Stable.


Incompatible Materials: Not established

Hazardous Decomposition / Combustion: Carbon monoxide, carbon dioxide

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Carcinogenicity: NTP: No

OSHA: No

IARC: No

LD50: Not established. LC50: Not established.

Contains substances that may cause cancer. Product has not been tested.

12. ECOLOGICAL INFORMATION

Product not tested.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATION

Waste Disposal Method: Dispose of in accordance with all Federal, State and Local environmental regulations. In Europe follow the Special Waste Regulations.

14. TRANSPORT INFORMATION

Transport in accordance with applicable international regulations and requirements.

Un- none

15. REGULATORY INFORMATION

The information in this Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated hereunder (29 CFR 1910.1200 ET. SEQ.).

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation (CPR).
Canadian WHMIS:

D2B Materials Causing Other Toxic Effects - irritant

This product has been classified in accordance with the guidelines set by the Dept. of Industrial Health of the Republic of Singapore.

**WARNING:** This product can expose you to chemicals including [epichlorohydrin, 1,4-dioxane] which are known to the State of California to cause cancer, and [epichlorohydrin] which can cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

SARA 313 Listing - 40 CFR 372.65 - None

All ingredients are listed on the EPA TSCA Inventory.

This product has been classified in accordance with the Mexican guidelines, NOM-018-STPS-2015 and NOM-010-STPS-2014.

In China:
This product has been classified using the Chinese Occupational Limit for Hazardous Agents in the Workplace, GBZ2-2007. Decree No. 591: Regulations on the Control over Safety of Hazardous Chemicals GB 30000.28-2013, Rules for classification and labeling of chemicals. (GHS) GB/T 16483-2008, GB/T 17517-2013

This product has been classified in accordance with: Malaysian – OCCUPATIONAL SAFETY AND HEALTH (CLASSIFICATION, LABELING AND SAFETY DATA SHEET OF HAZARDOUS CHEMICALS) REGULATION OCTOBER 2013 – (CLASS).

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>HMIS Hazard Rating</th>
<th>Health: 2</th>
<th>Fire: 1</th>
<th>Reactivity: 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revised Date</td>
<td>29 OCTOBER 2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepared by</td>
<td>Nancy Swarts, Indium Corporation of America</td>
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<tr>
<td>Approved by</td>
<td>Nancy Swarts, Indium Corporation of America</td>
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</tr>
</tbody>
</table>

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